

# Field Trip to Mount Vernon

## Speaker: Esther White

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On a beautiful May 6, CHoW members and guests met at the Mount Vernon Inn for lunch. Afterwards, we had time to visit a number of exhibits before gathering again a couple miles away at George Washington's Gristmill and Distillery.



The gristmill uses the Oliver Evans system that automated all parts of the flour milling, according to our guide Steve Bashore. CHoW visitors could appreciate what a loud and dusty enterprise grain milling actually is to this day. George Washington was fortunate to have a ready supply of water as a power source on his property. Interior water wheels are found more often as one travels north in the country.



The pair of stones from France that ground the Virginia wheat is a harder and more premium stone than the less-fine set used for corn. With a set of two stones, it is only the top one that rotates, and the two stones should never

touch. You don't want bits of stone falling into the flour nor do you want to create sparks that could start a fire.

Evans, who received the third patent granted by the United States, designed elevators for vertical movement and conveyer systems for sideways movement in gristmills. The elevator dumps the stone ground flour onto the third floor and the rake or "hopper boy" dries and moves the flour. A "hopper boy" machine is named for the boys who previously manually raked the flour to aerate it.





## The Distillery

After the tour of the gristmill, we moved on to the distillery, which was probably the largest distillery in the U.S. in George Washington's time. In order to operate a distillery, you needed: (1.) grain; (2.) water that could be pumped; and (3.) fuel. Washington



had a woodland for fuel, a source of water, and a gristmill for the grain such as barley (which was roasted for flavor), corn, and rye.

James Anderson, a farm manager from Scotland, encouraged George Washington to build a distillery. They started with two stills and added three more. In 1799 the whiskey sold for \$1 a gallon and the distillery made \$7,500, not all of which was profit. When George Washington died, the distillery was selling more than 10,000 gallons a year. In 1997 the foundation of the original distillery was discovered at Mount Vernon.



Inside the distillery, another guide showed us the equipment and explained the distilling procedure. All of the work was done by six slaves and two overseers; the production schedule was 24/7. Cooking the grain, which took 10-12 hours, was the most important part of the process. One added yeast to convert the sugar to alcohol. The fermentation started from the top down and usually took 3 to 5 days.

After that time, the liquid went from the fermentation barrels to stills via a bucket brigade manned by slaves. The still was heated to 160 °F to evaporate the alcohol (water evaporates at 212 °F). The result of the first collection was 20-45 proof and undrinkable. The spent mash went out to the hogs. The mixture was then distilled a second time with a result of 80-100 proof.

Esther White, Director of Archaeology at Mount Vernon, also spoke to us about the history of the gristmill and distillery. During 1770-71 George Washington built a large merchant mill. The nearby creek was navigable and there was also a road that led to the Alexandria turnpike. Owning a merchant mill allowed one to buy more grain, five to seven years' worth on speculation, to be stored at the mill.

George Washington abandoned much of his 1000 acres that had been planted in tobacco as he gradually switched to flour production. The finer cake flour was exported to western Europe and the Caribbean. Whiskey only went as far



Esther White and the Distiller

as Alexandria. Up to two thirds of gristmills had distilleries attached to them in the 1800s. In the 1830s there was a backlash against alcohol: the temperance movement started in the 1820s.

The average distillery was 20 x 40 feet; George Washington's was 75 x 30 feet and had bedrooms on the second floor. Most distilleries had one or two stills operating for one or two months a year, usually September and October, producing 3,000 gallons. George Washington's distillery operated twelve months a year. It was one of the largest in the United States. The whiskey was sold not in bottles but rather in 30 gallon barrels. George Washington also moved his cider mill to this same locale. In 1814 the distillery caught fire and in the 1850's the gristmill closed. In 1932 a replica of the gristmill was built and the reconstructed distillery was just opened to the public in April 2007, about a month before CHoW's tour.

